

# **The History of Wargaming**

**Matthew B. Caffrey Jr.**  
**AFRL Wargaming**  
**Plans & Programs Directorate**  
**Air Force Research Laboratory**  
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# Disclaimer

The views expressed in this briefing are those of the speaker and do not necessarily represent those of the Air Force Research Laboratory or the United States Air Force.

# My Bio

- ↪ Previous Civilian positions:
  - ↪ Professor of Wargaming, ACSC
  - ↪ Research Associate, SAAS
- ↪ Colonel USAFR (ret.) Assignments included:
  - ↪ Senior Reservist, AFRL, Info Directorate
  - ↪ Chief Wargaming, AF/XOOC (Checkmate)
- ↪ Co-author Gulf War Fact Book

# **If you are professionally interested in Wargaming you probably want to know**

- ↪ Is it advantageous to wargame?
- ↪ If advantageous, what factors degrade utility?
- ↪ What can be done to increase the utility?

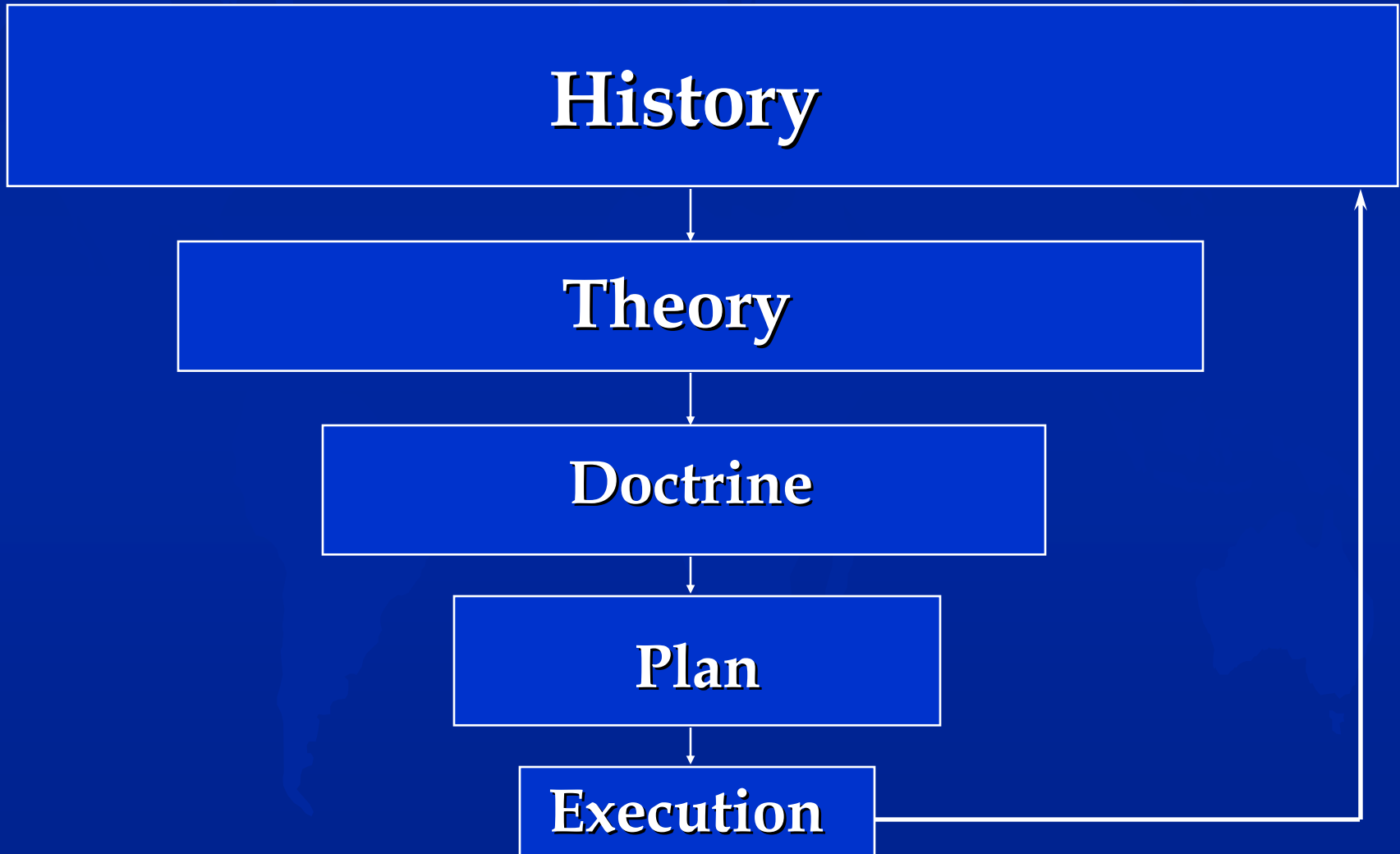
# How Do We Answer These Questions?

↪ Set Up Experiments?

# How Do We Answer These Questions?

- ↗ Set Up Experiments?
- ↗ Find Natural Experiments

# Strategy Cycle



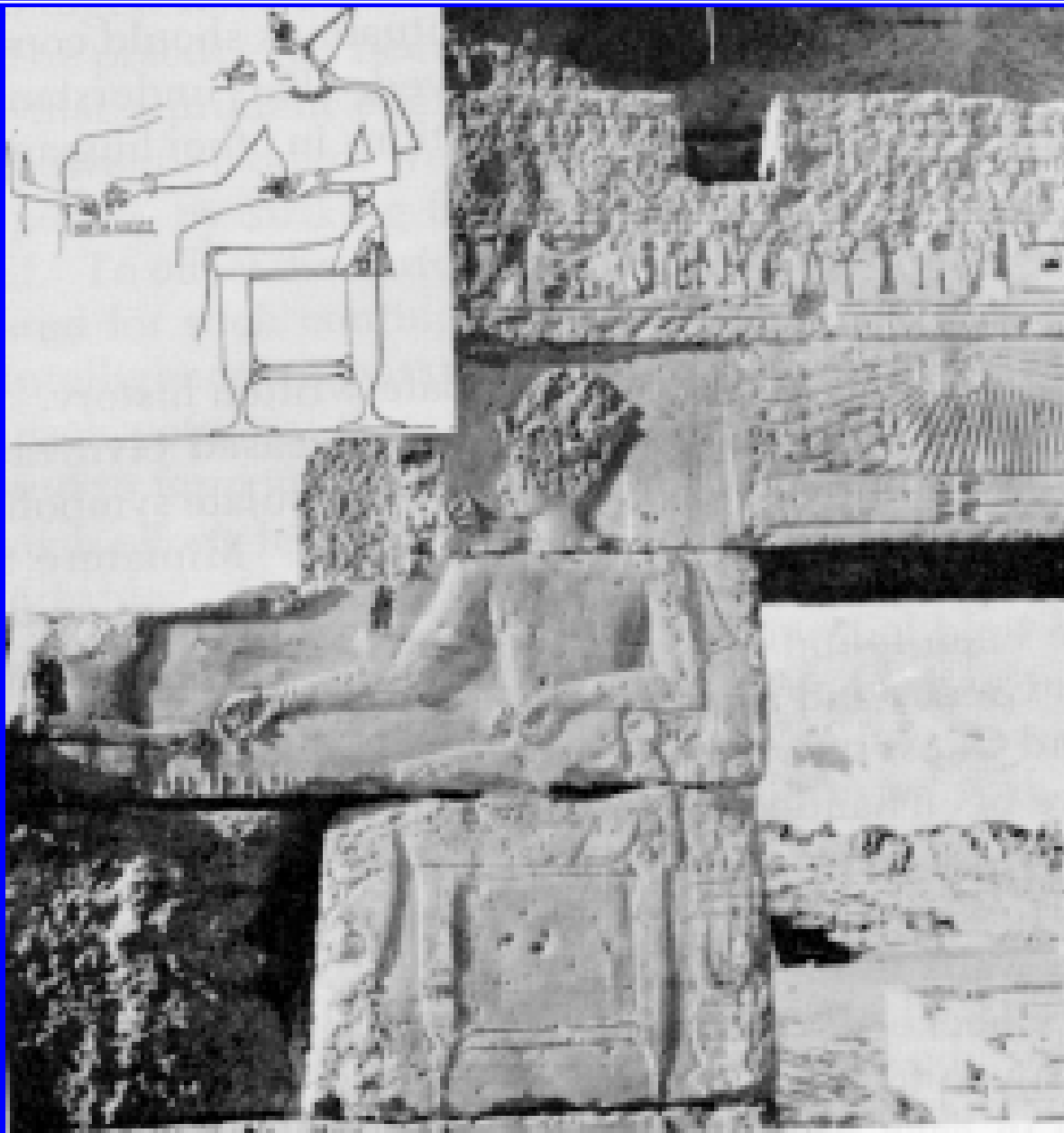


## **Other Reasons to Learn The History Of Wargaming?**

- ↪ Gives credit to those who advanced the field
- ↪ It provides “the rest of the story”
- ↪ It’s interesting

# In the Beginning

- ↪ It all started with language - and toys
- ↪ The Royal Toys



# **In the Beginning**

**Egypt**

**Rome**

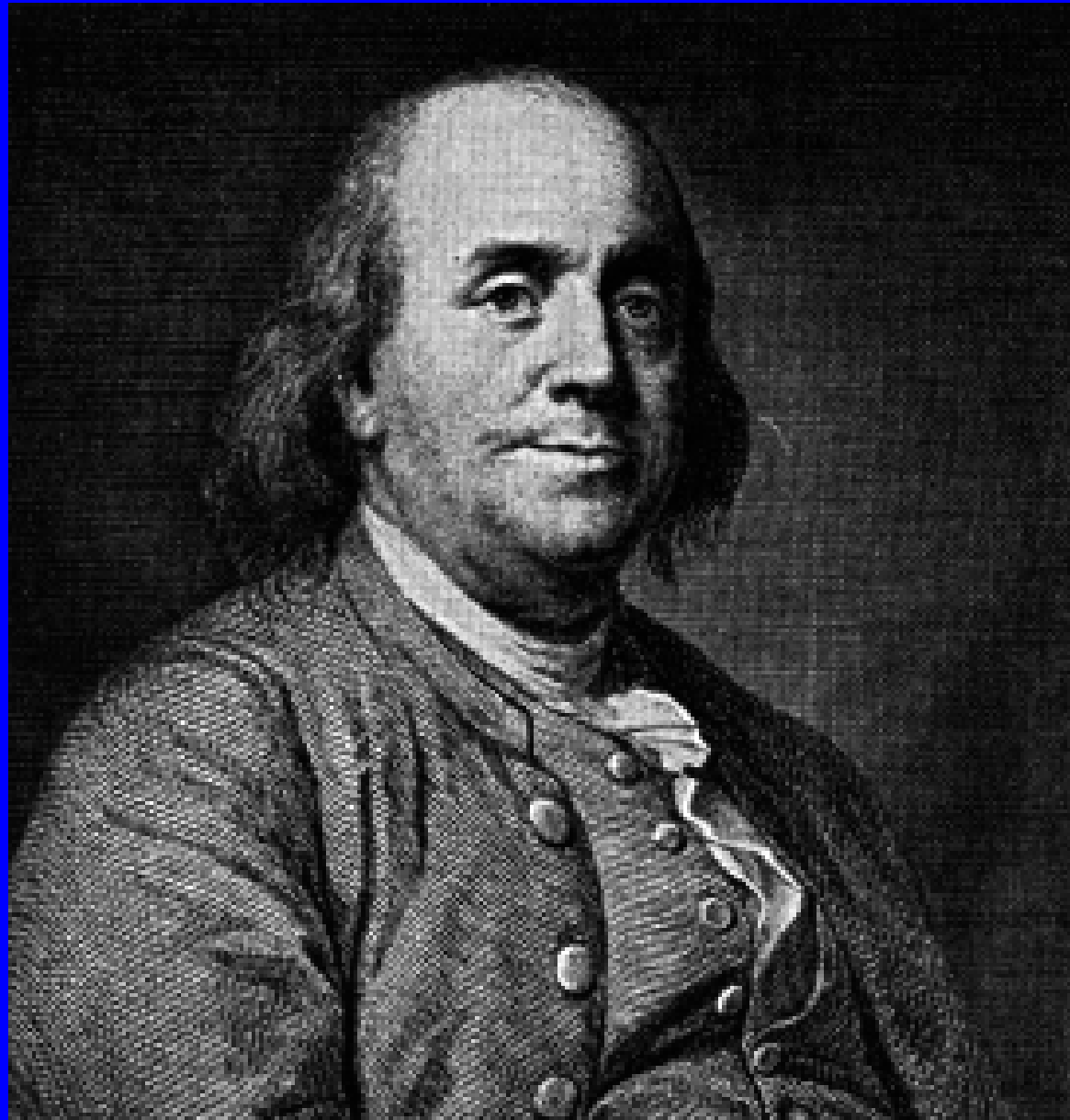
**China**

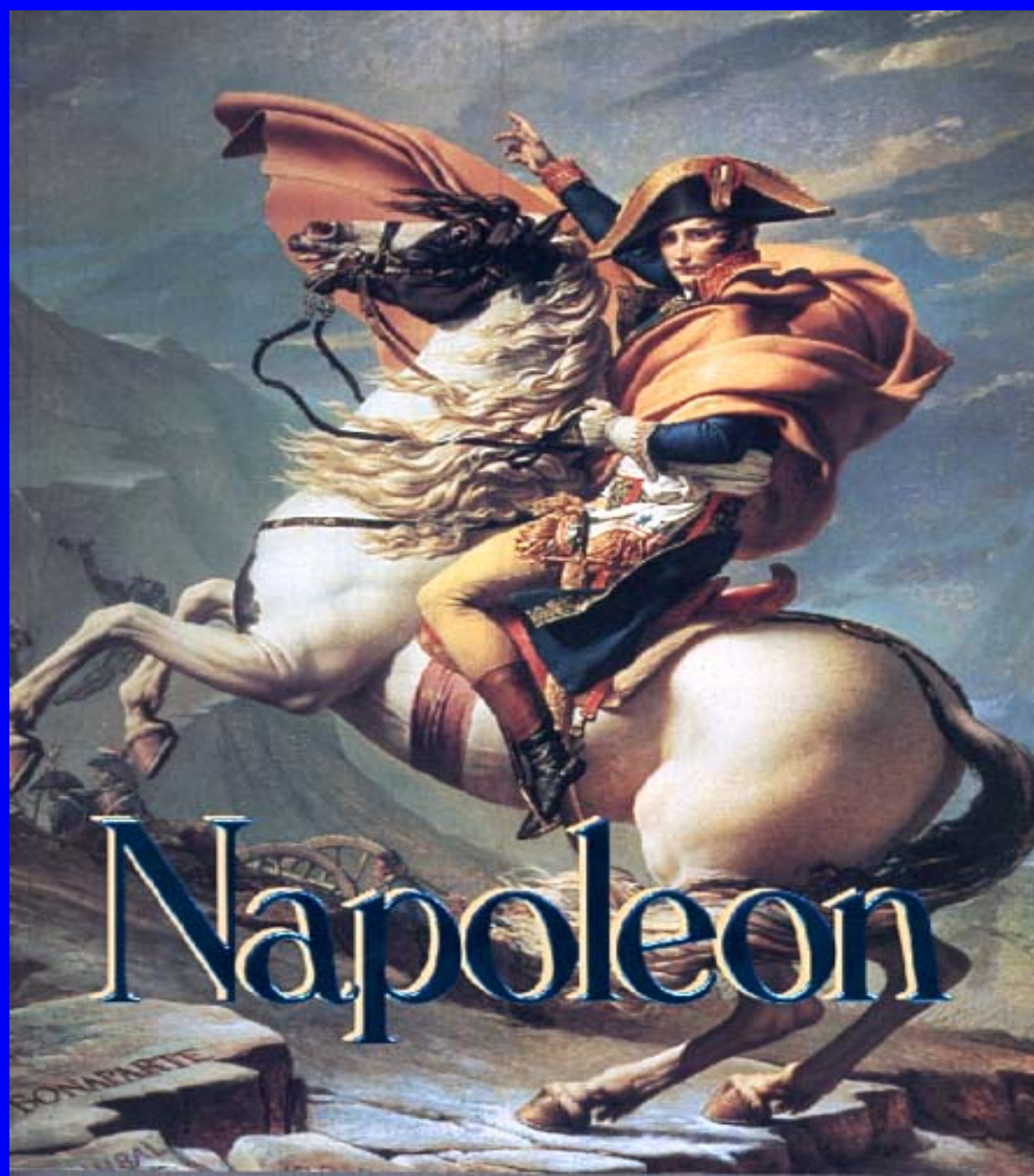
**India**

# On The Brink





- ↪ Fredrick's use of maps
- ↪ Clerk models naval combat
- ↪ Abstract games grow less abstract:
  - ↪ 1664 Koinigspiel
  - ↪ 1780 Kriegschach
  - ↪ 1797 New Kriegspiel





# Napoleon's Advantages

  
 Technology

 Genius

 Meritocracy

 Numbers



# The Origins of Modern Wargaming

1811 - Herr von Reisswitz - a base of sand

1824 - Lt Reisswitz - the expanding circle





# Moltke's Process

- Offsite
- Brain Storming
- Wargame
- Exercise
- Deliberate Planning

# World Wide Wargaming

1866

Austro-Hungarian

1872 / 1883

England

1873

Italy

1874 / 1889

France

1820 / 1875 / 1905

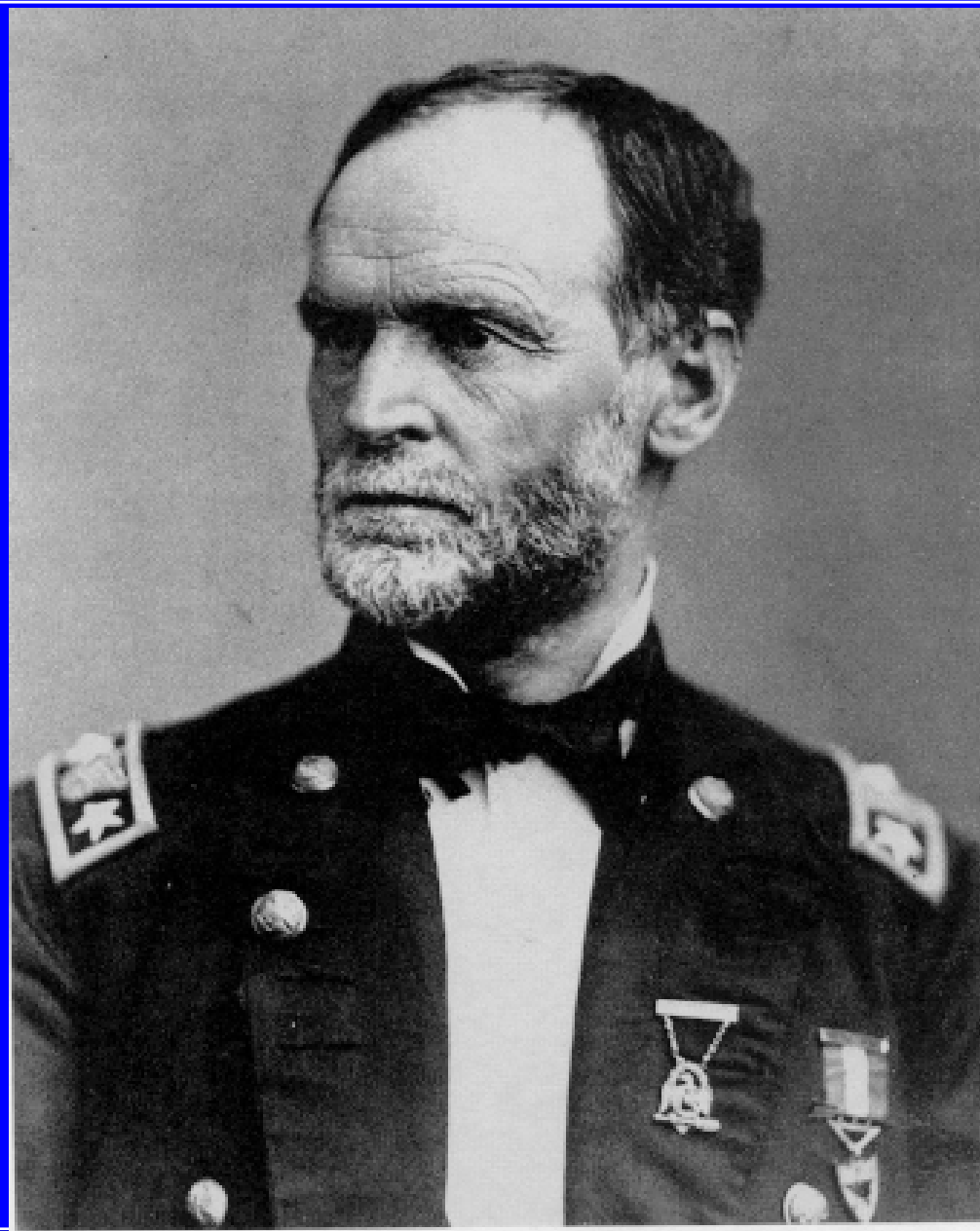
Russia

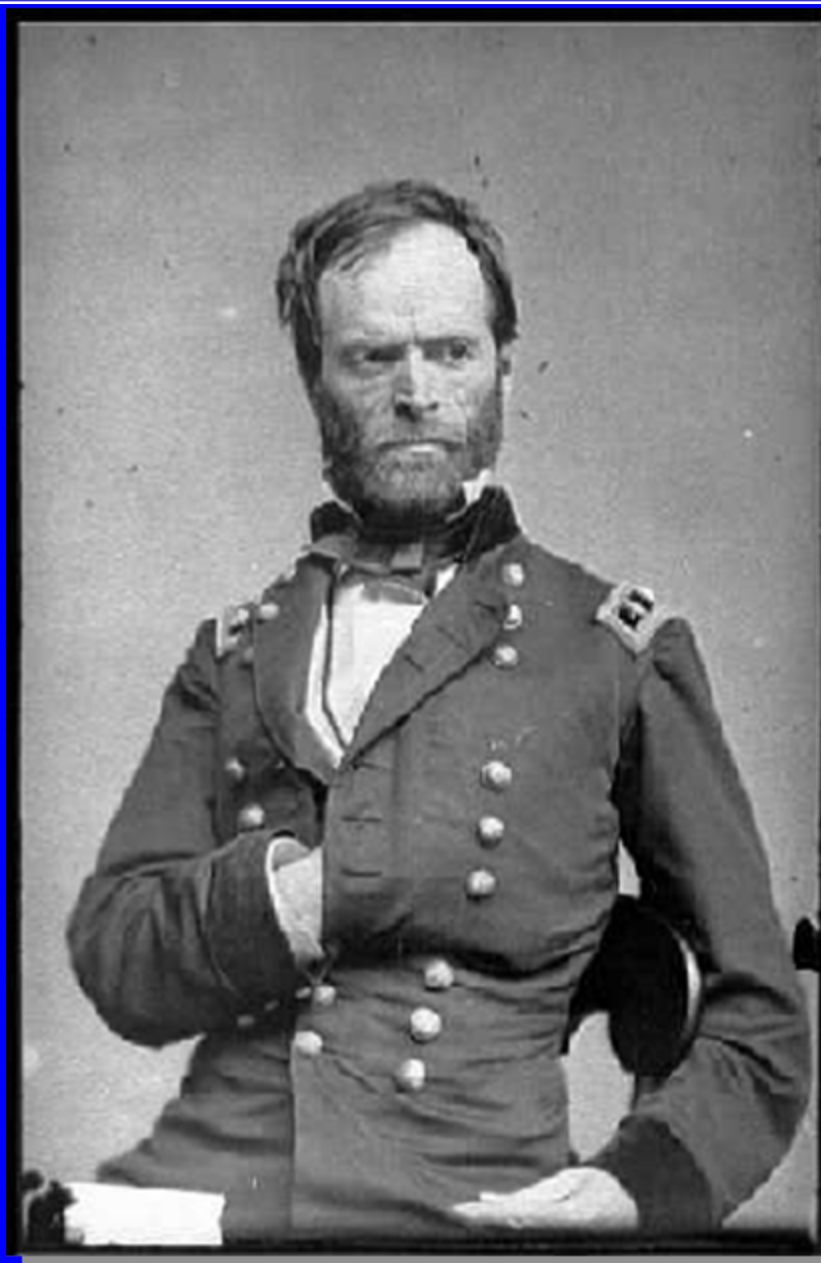
Secondary diffusion

Japan, Turkey, Latin Am.

# Coming to America

⇒ 1883 - Major Livermore





# Coming to America

1883 - Major Livermore

⇒ 1886 - US Naval War College





# Coming to America

1883 - Major Livermore

1886 - US Naval War College

➤ 1900 - US Army War College

# Innovation & Decline in Germany

## ↘ Innovation

**Morale  
Factors**

**Free  
War-  
gaming**

## ↘ Decline

**Cmd  
Influ-  
ence**

**Face  
Time**

# **Birth of Modern Civilian Wargaming**

## **The Reserve Connection**

- ↪ 1873- Wilkinson - one man's impact
- ↪ 1890s Delbrück - first duty of the new rulers

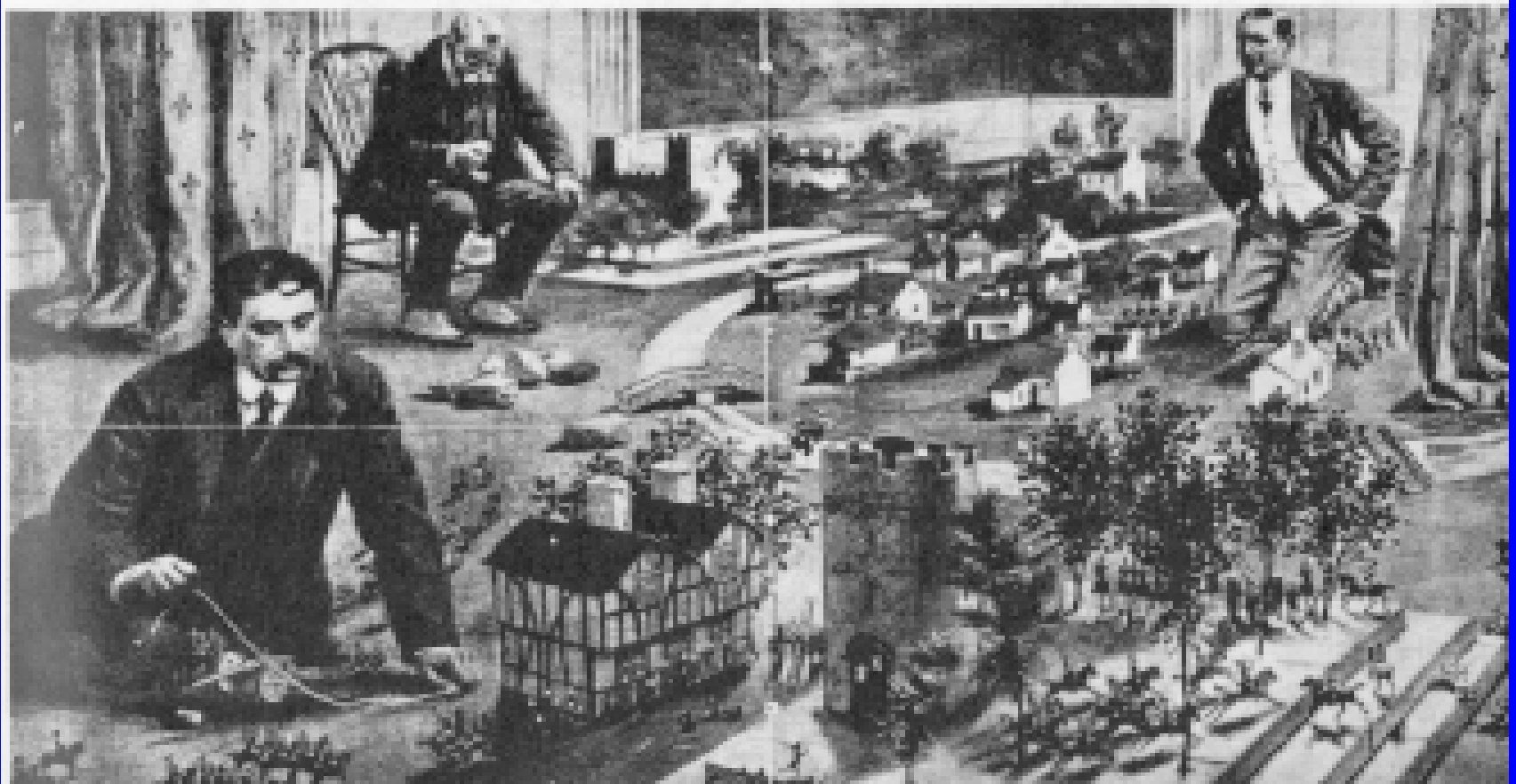
# **Birth of Modern Civilian Wargaming**

## **The Popularizes**



# **Birth of Modern Civilian Wargaming**

## **The Popularizes**



# Wargaming the Great War

## ↗ Pre-war Wargaming

- 1905 The wargames that shaped the world
- 1910s Moltke the Younger and the return of rigor
- 1914 The wg that didn't change history

## ↗ Wargaming & the Great War

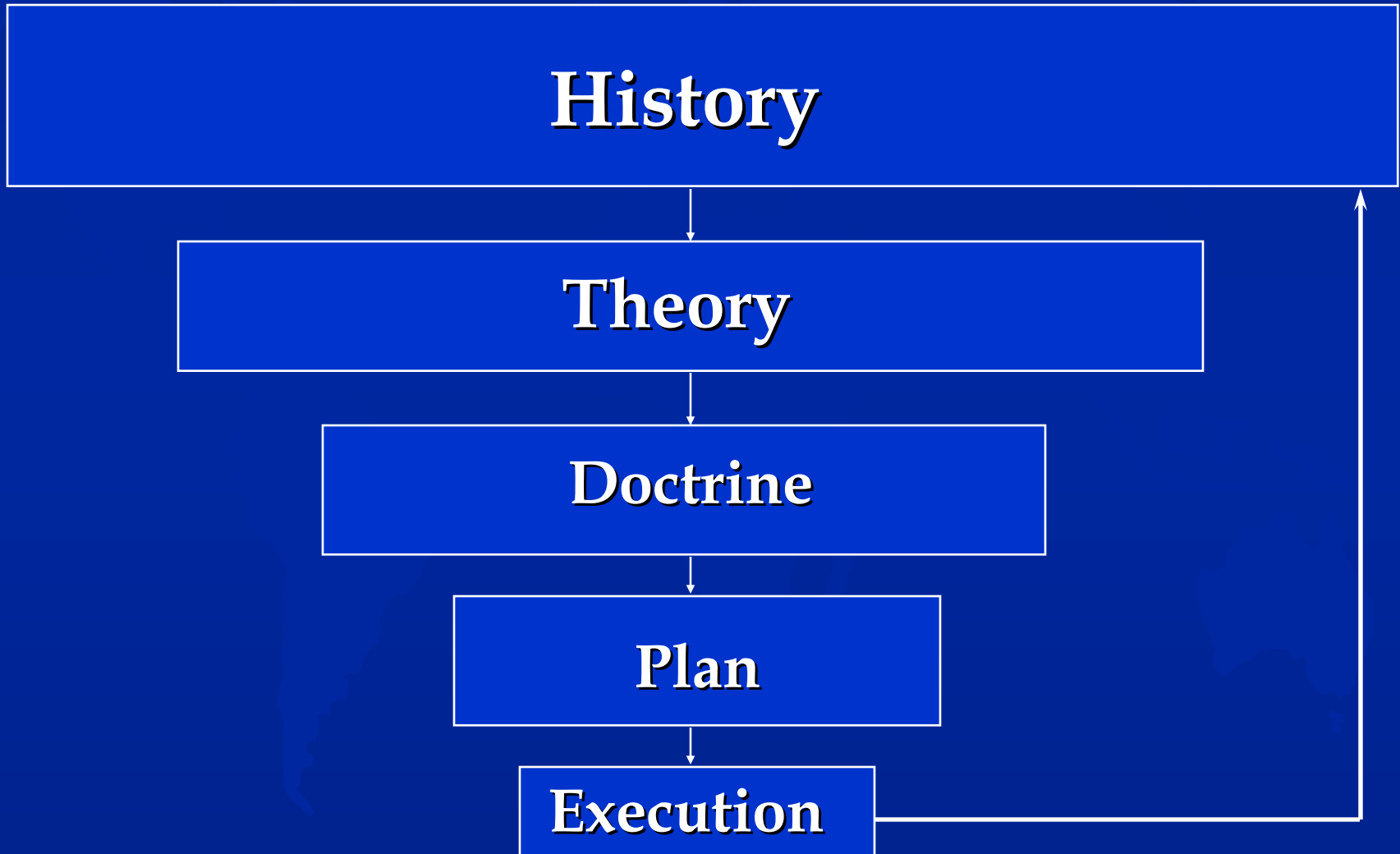
- The Peace offensive - the limits of „force on force“ wargaming

# Inter War Wargaming

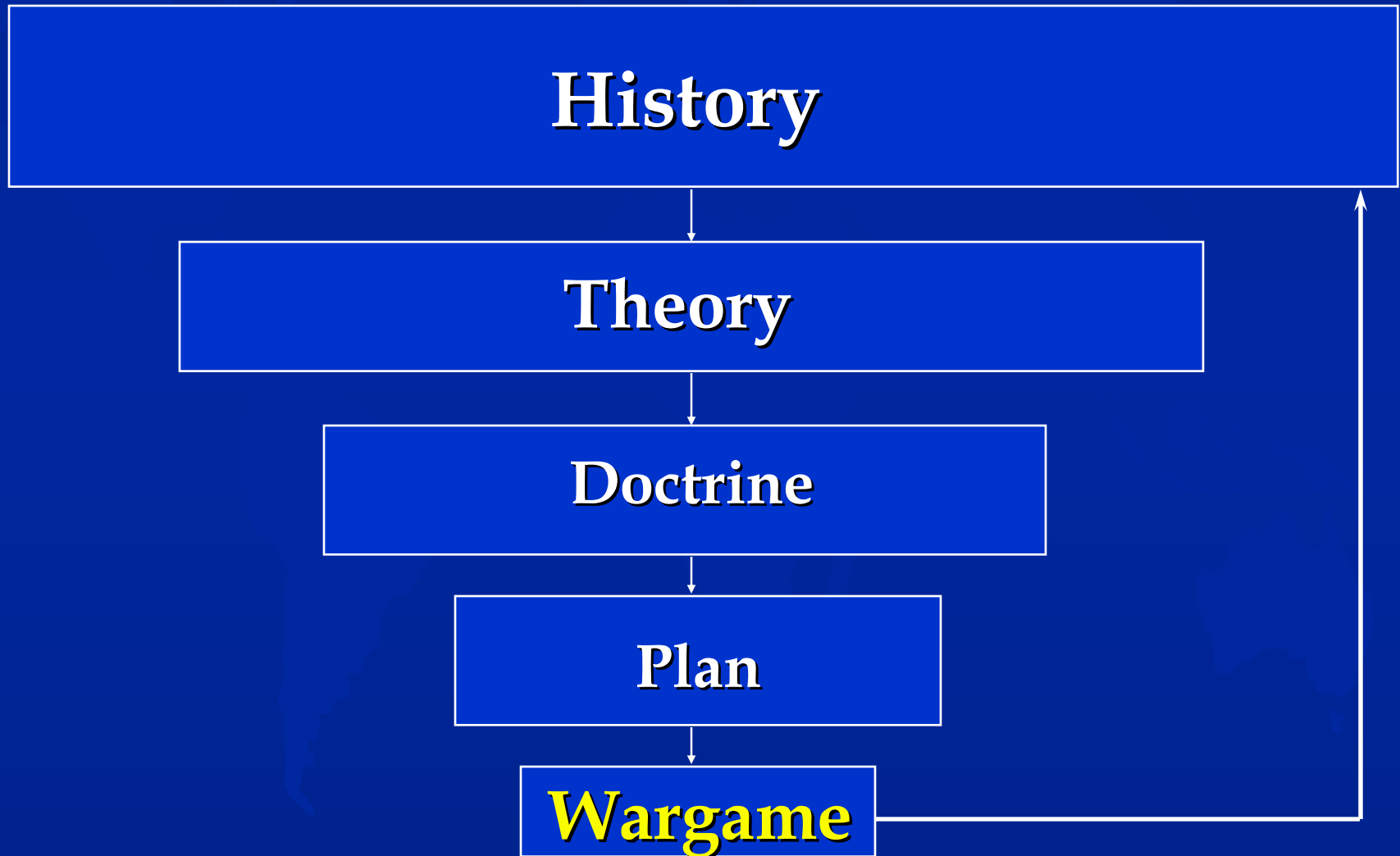
- ↪ Germany – Strat Innovation > “Blood & Soil”
  - Opp Innovation > Blitzkrieg



# Strategy Cycle



# Strategy Cycle



# Inter War Wargaming

↗ Germany – Strat Innovation > “Blood & Soil”  
- Opp Innovation > Blitzkrieg

↗ US

Navy PME:

- Teach how to learn
- Accelerate MTR

Army: Just in Time

Air Corps: A false dawn

↗ UK - Negative example

↗ USSR - Victory through defeat

# World War II

## Germany

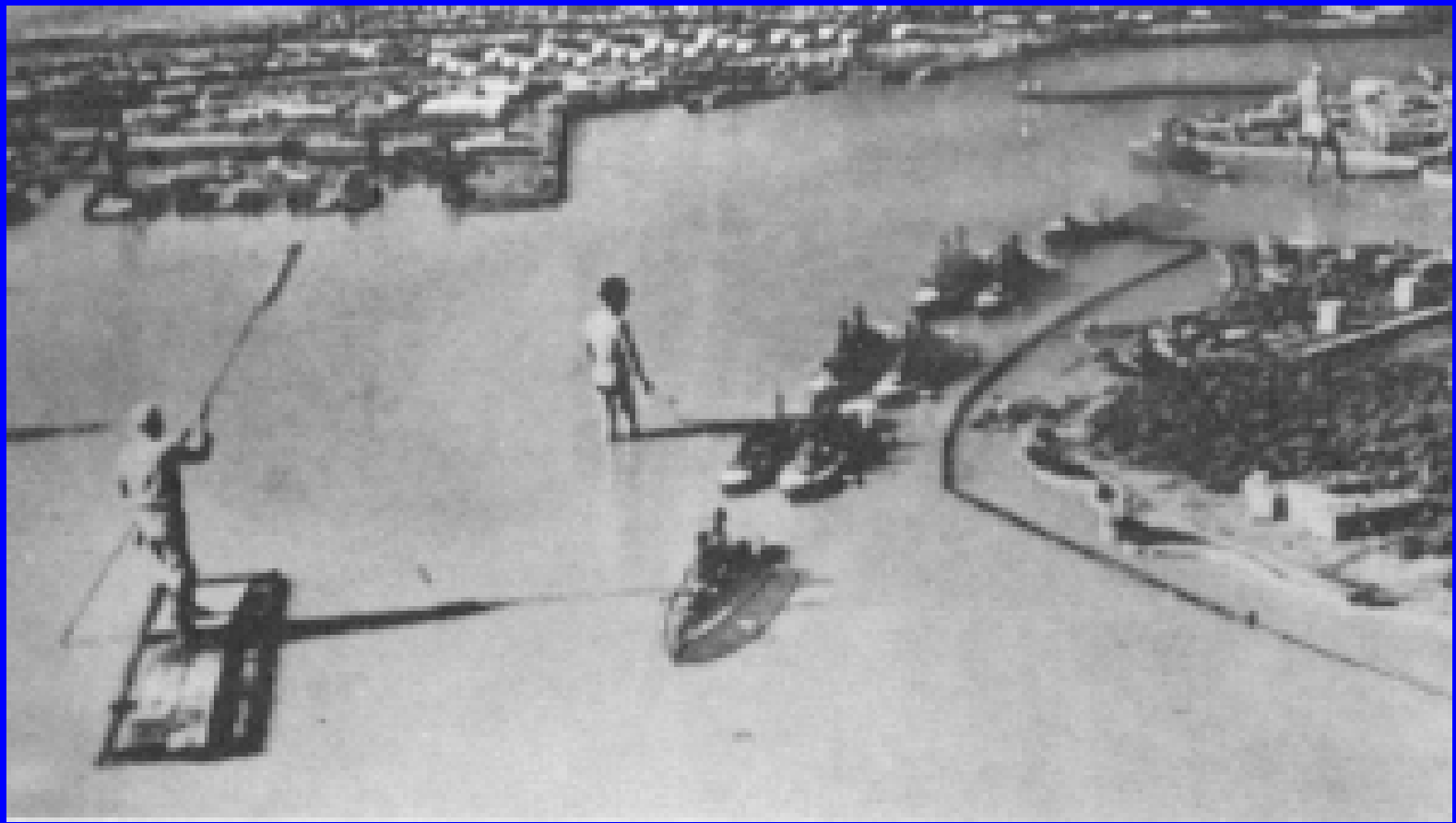
- Mannstein makes his case
- Barbarossa - an accurate mistake
- Victory at Normandy, twice

# World War II

Japan

↪ The Total War Research Institute

# World War II



# World War II

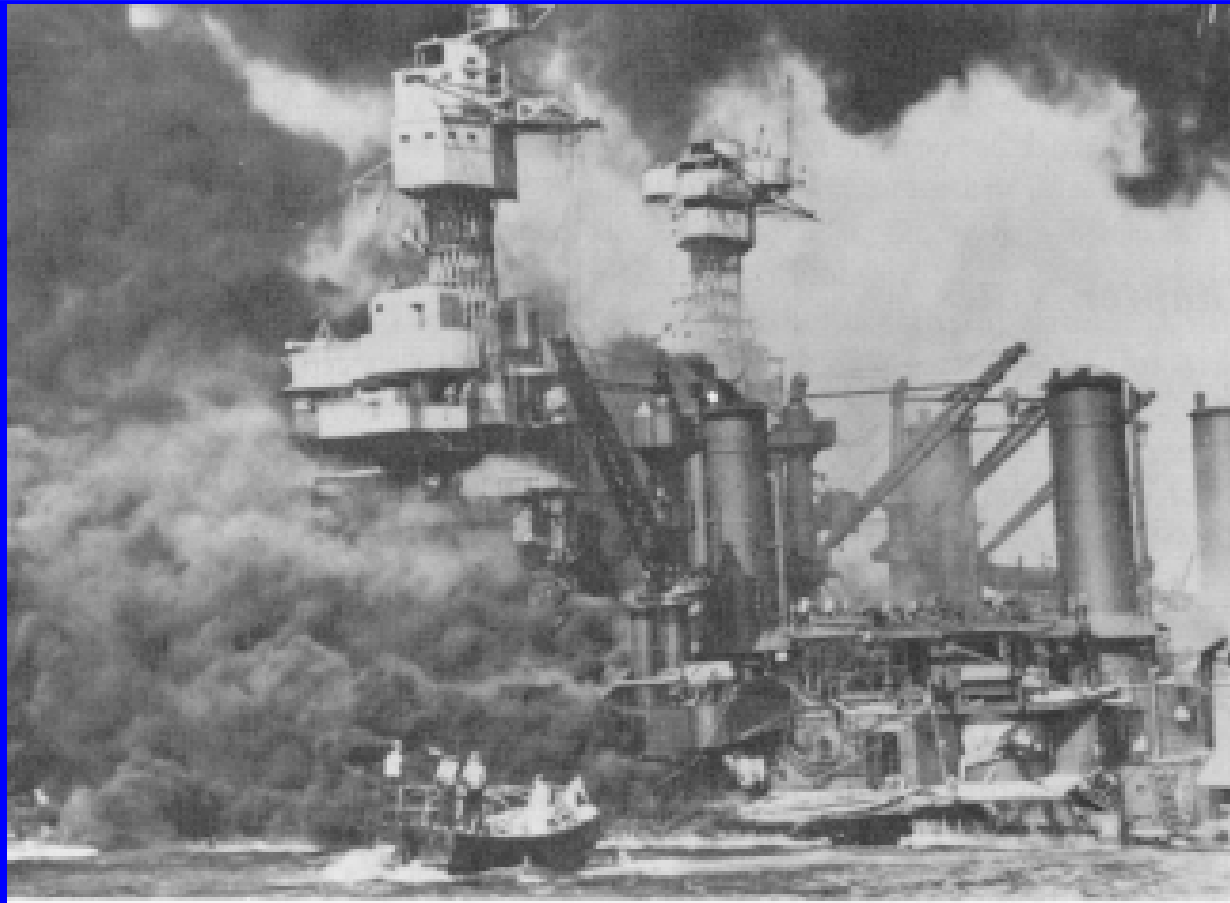
Japan

The Total War Research Institute



Both attacks on Pearl Harbor

# World War II





# World War II

## Japan

The Total War Research Institute

Both attacks on Pearl Harbor

Both battles of Midway

Why did Japan keep on fighting

# World War II

⇒ UK

⇒ Both extremes



12A7 Sir Henry Tizard and General Sir Bernard Montgomery, Oxford, March, 1944

# World War II

↪ UK

↪ Both extremes

↪ US

↪ US Army Ground Forces - unknown

↪ US Army Air Forces - sorely missed

↪ USMC “eerie” success, then..

↪ Navy success - but ...

# World War II

*The war with Japan had been [enacted] in the game room here by so many people in so many different ways that nothing that happened during the war was a surprise, – absolutely nothing except the Kamikaze...”.*

Fleet Admiral Chester Nimitz

# Eclipse

Decline in the  
study of war  
at the war colleges

Rise of  
deterrence &  
the efficient DoD

Did „The Bomb“ make  
wargames obsolete?

Korea seen as  
an aberration

# Why was Wargaming Reborn?

↗ The onset of the Cold War

↗ Assumed credibility of computers

↗ The obsolescence of war had been greatly exaggerated

# 1950s Analysis models

## ↪ US

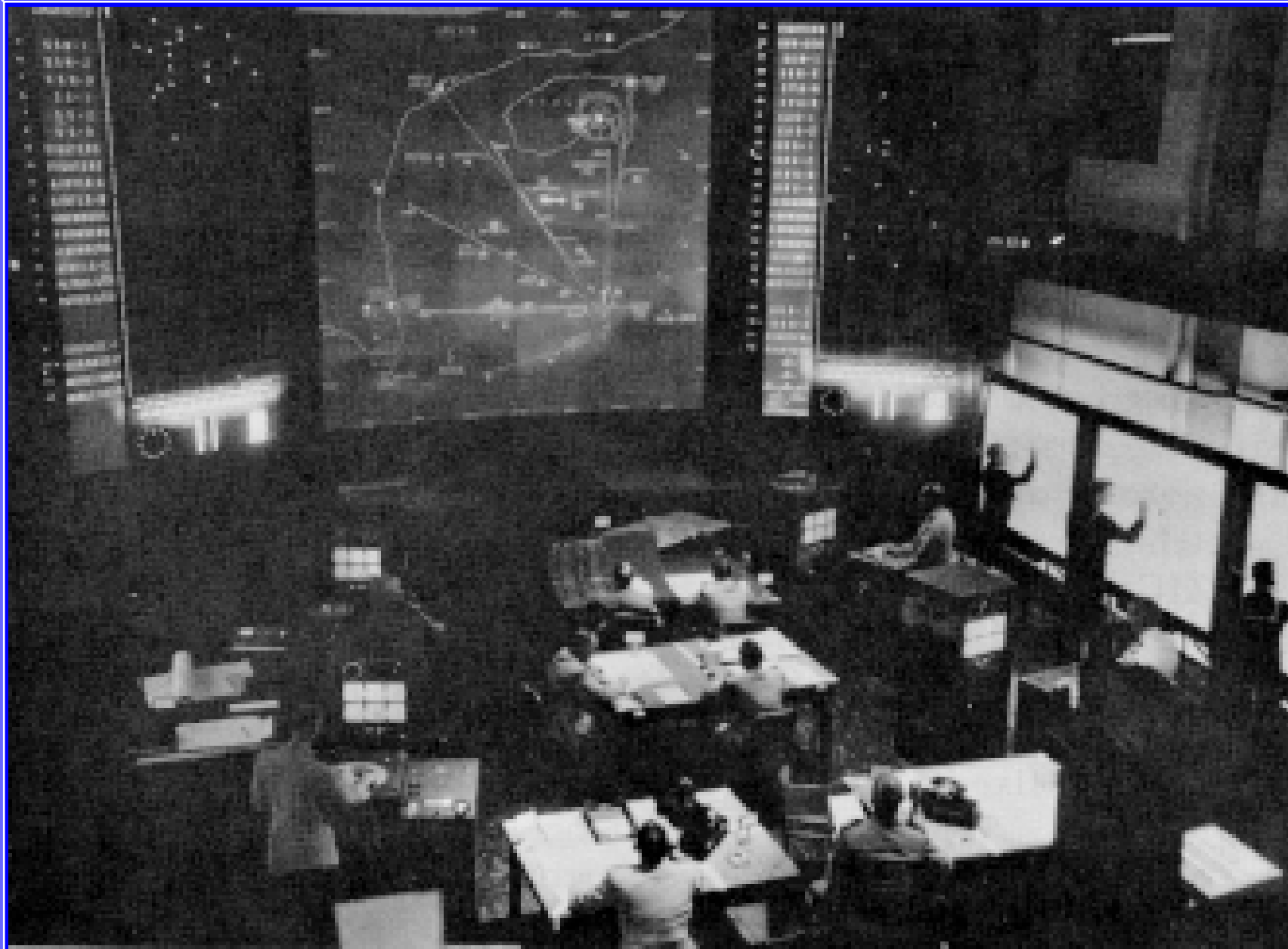
- ↪ Naval - “NEWS” from the Naval War College
- ↪ USMC - Landing Force War Game series
- ↪ Army - “Aggressors,” at least a start
- ↪ Air Force - RAND & war gaming

## ↪ International

- ↪ Soviet historical rigor
- ↪ UK OR







# 1960s Pentagon Games

## ↪ US

↪ Joint - Wargaming at the heart

↪ Naval - NWC goes to “WARS”

↪ Army - making the case for Air Mobile

↪ Air Force - loses Skybolt, gains PME WG

↪ International - UK & Canadian OR

# Wargaming - The Vietnam War

## North Vietnam

- Soviet method of wargaming
- Partial explanation of lack of radio use, style of fighting

US

↪ Wargame predicted stalemate -- NOT continued to conflict resolution

↪ Limited in theater use

↪ Wargame predicted victory

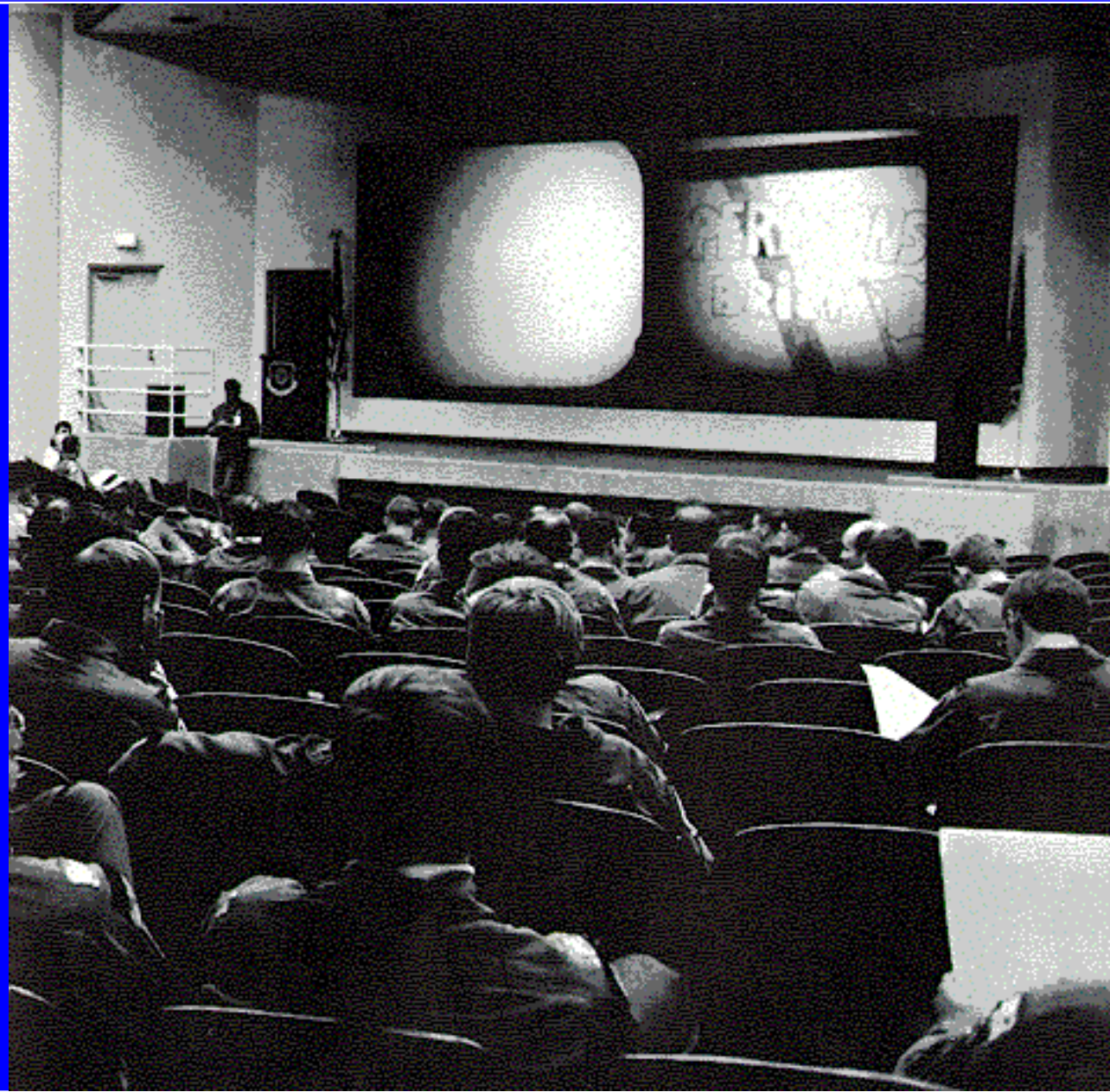
# 1970s Education and Training

## ↪ US

↪ Naval - Top Gun, to CRP, to Global

↪ Army - Tech solution to a people problem?

↪ Air Force - Red Flag!



# 1980s O-Plan Development

## ↪ US

↪ Naval - The golden age of Global

↪ Army - From III Corps to NTC

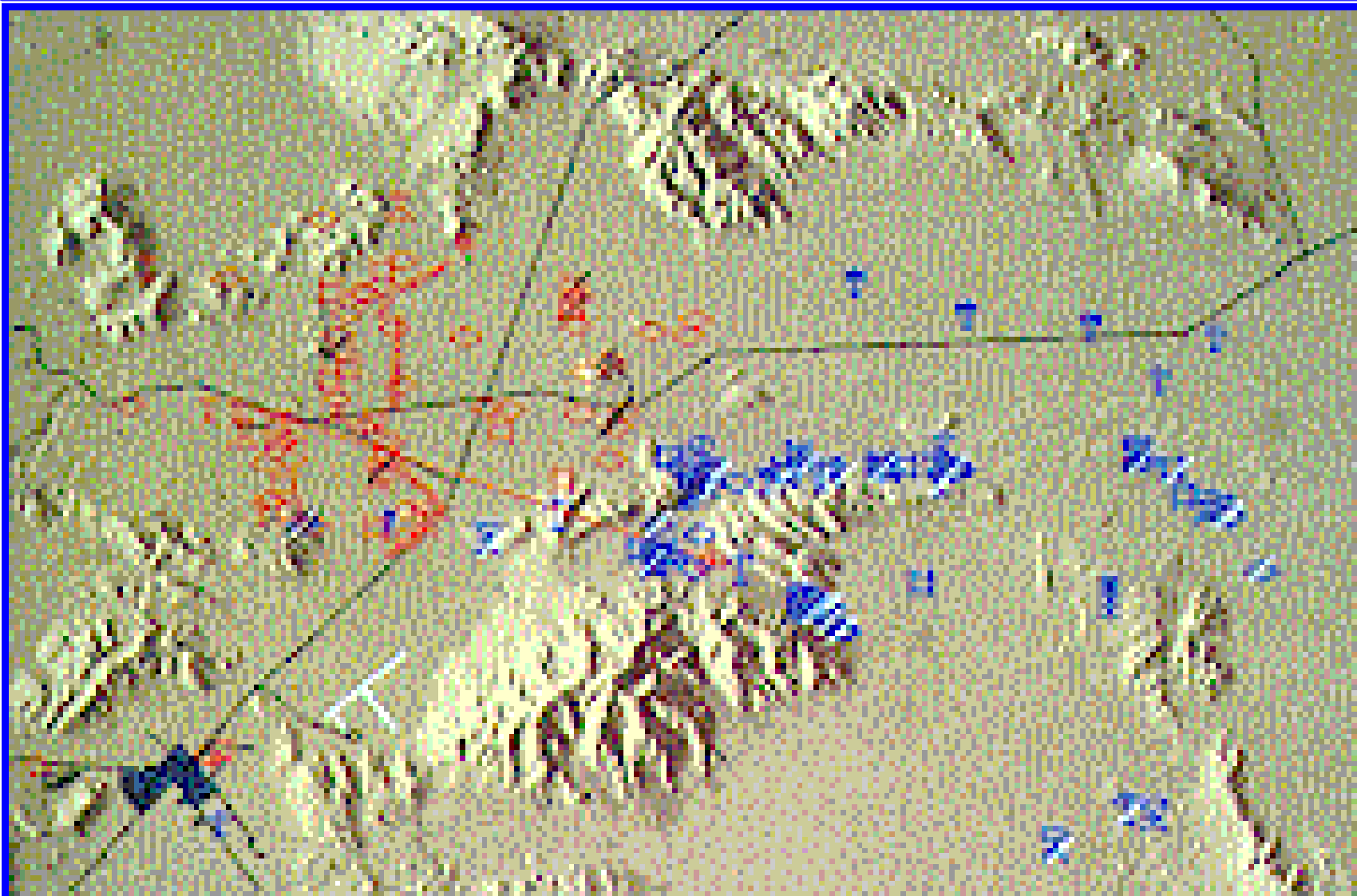
↪ Air Force - Air Force Wargaming Center

↪ USMC – The right wargame for each need

↪ Joint

↪ CENTCOM takes the lead

↪ DARPA's modest innovation





# Wargaming - The Gulf War

- ↗ Exercise in the Desert - Patriots accelerated
- ↗ Internal Look 90 - a reason we moved so fast?
- ↗ Wargamers at war - the road not taken
- ↗ Wargames in the field
- ↗ The US training edge



# 1990s Jointness

- ↗ US:
  - ↗ Greater Jointness
    - ↗ Service Wargames “talk” to each other
    - ↗ Fewer, more Joint “engines” JSIMS, JWARS
  - ↗ “Expanded” Use:
    - ↗ Congressional Liaison
    - ↗ Procurement Decisions
    - ↗ Tactics Development
    - ↗ Force Tradeoffs
  - ↗ Growing use of virtual wargaming
- ↗ International: Study US

# DoD Wargaming at a Crossroads

↗ More money going to wargaming

Relatively  
less  
expensive

No  
environ-  
mental  
impact

Secure  
from  
“overhead”  
observation

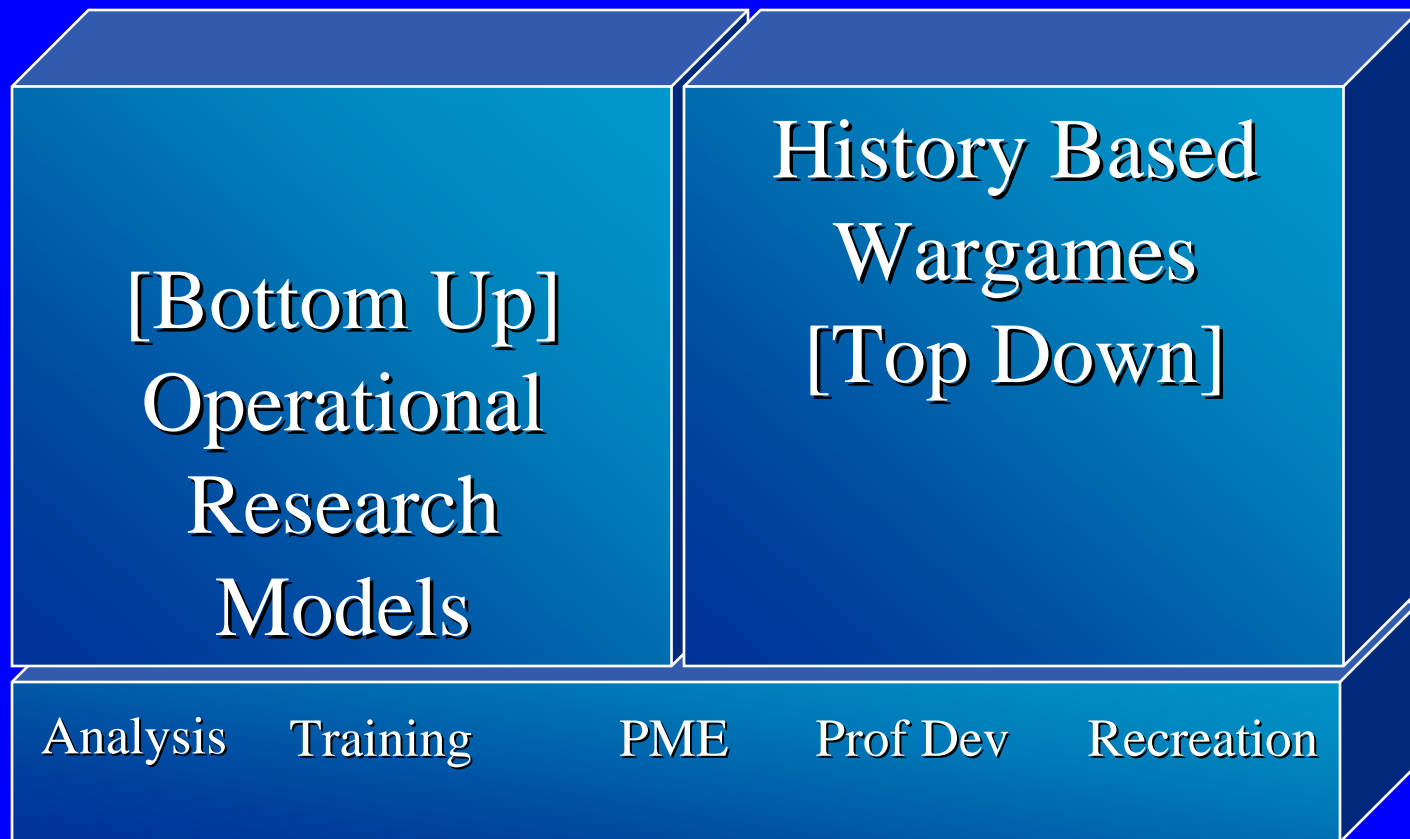
Exploits  
more  
computing  
power for  
less money

Credibility  
with  
Congress

# DoD Wargaming at a Crossroads

- ↗ More money going to wargaming
- ↗ More doubts than any time since the late 40s
  - High Desert Storm Casualty Predictions
  - RAND's Base of Sand Paper
  - HQ USAF concerns
  - Irrelevance in armed conflict with Serbia
  - "Competition" from commercial wargames

# DOD / Commercial War Games 1950 - 1990



# The Rise of Commercial Wargaming

## ↪ More Accessible Wargames

- 1950s Charles Roberts
- 1960s Eric Dott & Avalon Hill
- 1970s James Dunnigan & the S&T Staff +
- 1980s Chris Crawford & Gary Grigsby
- 1990s 25 Billion dollar global industry

# The Rise of Commercial Wargaming

## ↪ More Citizens Playing Wargames

- 1950s      Thousands
- 1960s      Tens of Thousands
- 1970s      Hundreds of Thousands
- 1980s      Millions
- 1990s      Tens of Millions

# Commercial/DOD Integration





# 2000+

Old bothersome problems become major needs

↪ OEF too fast to wargame

↪ OIF

↪ “This is not the enemy we wargamed against.” Lt Gen Wallace, V Corps CC

↪ How do you wargame Phase IV?

# Has The Above Helped Answer Our Questions?

- ↗ Is it advantageous to wargame?
- ↗ If advantageous, what factors degrade utility?
- ↗ What can be done to increase the utility?

# Is it advantageous to wargame?

YES!

- ↪ Education & Training
  - ↪ German War College – NWC wargames
  - ↪ Louisiana Maneuvers – Red Flag - Virtual Battles
- ↪ Doctrinal Development & Tech Utility
  - ↪ Mobile Opps, wolf Packs – CV/ Amphib
- ↪ Operations Planning
  - ↪ Fall of France – Drive on Baghdad

# What Factors Degrade Utility?

- ↗ Command Influence
- ↗ Red and/or Blue not following the anticipated strategy
- ↗ Model omits a factor that is decisive in conflict depicted
- ↗ Critical juncture in conflict occurs after end of game time
- ↗ Very Improbably events occur

**What can be done to increase the utility?**

# To Learn More

## ◆ History

- The Art of Wargaming, Peter Perla, 1990
- <http://www.airpower.maxwell.af.mil/airchronicles/cc/caffrey.html>

## ◆ News

- <http://www.msrr.dmsoc.mil/>
- <http://afmsrr.afams.af.mil/>
- <http://www-leav.army.mil/nsc/warsim/index.htm>

# To Learn More

➤ Go to: [WWW.AU.MIL](http://WWW.AU.MIL)

➤ Pull Down: Aerospace Power  
Chronicles

➤ Go to Fall 00 Issue

**Questions?**

**Comments?**

**Discussion?**